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March 8, 2012

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Via U.S. Mail and Electronic Mail
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Re: San Jacinto River Waste Pits Superfund Site ("Site")/Unilateral Administrative Order for Remedial Investigation and Feasibility Study, U.S. Environmental Protection Agency ("EPA") Region 6, CERCLA Docket No. 06-03-10 ("UAO") and Administrative Settlement Agreement and Order on Consent for Removal Action between EPA, McGinnes Industrial Maintenance Corporation ("MIMC") and International Paper Company ("International Paper"), U.S. EPA Region 6 CERCLA Docket No. 06-12-10 ("AOC") – San Jacinto River Fleet LLC ("SJRF") Activities and Draft Work Plan

Dear Jessica:

Thank you for forwarding the "Draft Sampling and Analysis Plan for Pre-Construction Baseline Site Assessment, San Jacinto River Fleet Property, Harris County, Texas" dated February 2012 that was prepared on behalf of SJRF ("Draft Baseline Site Assessment SAP"). You requested that Respondents MIMC and International Paper provide comments on the Draft Baseline Site Assessment SAP by March 8, 2012. Comments prepared by Respondents' consultant, Anchor QEA ("Anchor Comments") are set out in a Memorandum that is attached as Exhibit 1.

This letter also describes Respondents' long-standing concerns about SJRF's operations, and in particular, the impact of those operations on the armored cap constructed as part of the Time Critical Removal Action ("TCRA") at the Site ("TCRA Armored Cap"). Those concerns are the basis, in part, for Respondents' objections to the scope of SJRF's assessment efforts and to any attempt by SJRF to gain liability protection with respect to its impact on the Site.

I. COMMENTS ON DRAFT BASELINE SITE ASSESSMENT SAP

The Draft Baseline Site Assessment SAP states that it "is intended to establish the present status of the SJRF Property with respect to the ongoing investigation at the Superfund site so that future liability can be averted with regard to remobilizing dioxin contamination sediment from barge activities." Draft Baseline Site Assessment SAP at 4. As addressed below,

however, the Draft Baseline Site Assessment SAP assumes that SJRF operations have not already redistributed sediments at the Site – when they in fact have. The Draft Baseline Site Assessment SAP's focus on "avert[ing] future liability" thus is misplaced, and the investigation it proposes is inadequate to assess the extent of the impacts that SJRF's operations to date have caused.

As explained in the Anchor Comments, the work contemplated by the Draft Baseline Site Assessment SAP is not sufficient to assess the extent of the harm and impacts associated with SJRF's operations, both in the past and the future. In addition, specific shortcomings that Respondents identified to EPA relative to the October 13, 2011 proposal that SJRF submitted to EPA ("SJRF Proposal", attached as Exhibit 2) are not addressed in the Draft Baseline Site Assessment SAP. Among other things, the Draft Baseline Site Assessment SAP focuses on determining the concentrations of dioxins and furans in locations where SJRF is considering placing pilings for their operations and fails to address concerns related to sediment disturbances already created by propeller wash from SJRF's operations.

Those impacts associated with SJRF's operations have already occurred and will continue to occur unless EPA takes steps, as outlined below, to prevent additional impacts from SJRF's operations. As discussed below, EPA should also require that SJRF reduce or cease its operations until such time as it has completed an investigation that satisfactorily demonstrates that its operations are not having a deleterious effect on the Site. As addressed below, EPA has indicated in guidance that it has the authority to take such actions, and doing so would be consistent with EPA's contaminated sediment management guidance (U.S. Environmental Protection Agency, Contaminated Sediment Remediation Guidance for hazardous Waste Sites, EPA-540-R-05-012, OSWER 9355.0-85, December 2005 (USEPA 2005)), which identifies boating controls as an appropriate early action to minimize migration of contaminated sediments.

In submitting the Draft Baseline Site Assessment SAP, SJRF appears to be seeking liability protection with respect to the Site. There does not appear to be any justification for considering the extension of any liability protection to SJRF. As noted above (and addressed in more detail below), SJRF's operations appear to have caused resuspension of sediments with the potential to impact the TCRA Armored Cap, and the Draft Baseline Site Assessment SAP does not acknowledge, much less address, those impacts. As addressed below, SJRF acquired and began operations on its property aware of the adjoining Superfund site and on notice that the company from which it was acquiring the property had been involved in events associated with the unauthorized dredging of the berm surrounding the waste impoundments ("Impoundments") at the Site. Under the circumstances, there is no basis for EPA to consider extending liability protection to SJRF, much less to extend any such protections to SJRF.

II. IMPACTS FROM SJRF'S OPERATIONS

On a number of occasions, Respondents have raised with EPA concerns about SJRF's tugboat and barge operations. Those concerns, and the evidence supporting Respondents' view that SJRF's operations impacted and continue to create the potential for resuspension of potentially-

contaminated sediments in and around the TCRA Armored Cap are discussed below. To summarize:

- Since mid-2011, SJRF has occupied (and in August 2011 purchased) the property formerly owned by Big Star Barge & Boat Company, Inc. ("Big Star") that adjoins the Impoundments (the "Former Big Star Property" or "Property").
- As Respondents have repeatedly documented (most recently in a letter dated December 20, 2011, a copy of which is attached as Exhibit 3), dredging activities based at the Former Big Star Property began in the late 1990s and undermined the berm surrounding the Impoundments. The dredging activities are the apparent cause and source of dioxins and furans that have been detected on and around the Property and in the San Jacinto River ("SJRF") in the vicinity of the Impoundments.
- Propeller wash from SJRF's tugboat fleet appears to be suspending potentially contaminated sediments from the river bed and may be causing those sediments to be redistributed. In particular, SJRF's operations appear to be causing the redeposition of potentially contaminated sediments in areas addressed as part of the TCRA.
- During TCRA construction, EPA was focused on minimizing resuspension of potentially contaminated sediments associated with marine operations. To that end, Respondents constructed and maintained a turbidity curtain and took a number of steps to minimize that risk. In contrast, SJRF's operations involve larger vessels that create significantly more propeller wash than the vessels used during TCRA construction. SJRF's operations are also concentrated in areas where higher concentrations of dioxins and furans, associated with the Big Star dredging operations, have been detected.

A. SJRF's Acquisition of the Property

SJRF purchased the Former Big Star Property from Big Star in August of 2011. Its activities on the Property, however, began several months earlier. SJRF's website reflects that SJRF commenced its operations at that location as of July 1, 2011. Even before July 1, 2011, Respondents' TCRA contractors noted that grading and other activities were taking place on the Former Big Star Property and those activities were called to EPA's attention.

SJRF was aware of the Property's proximity to the Impoundments and of the Site investigation and TCRA construction when it decided to occupy and then acquire the Former Big Star Property. In fact, the deed by which SJRF acquired the Property includes an indemnity related to the activities of Big Star and its sister company, Houston International Terminal, Inc. ("HIT") associated with the Site. A copy of that deed is attached and marked as Exhibit 4.

Information about the role of Big Star and HIT in the dredging activities that took place on the Former Big Star Property was a matter of public record, and presumably was either formally disclosed to or otherwise available to SJRF before it decided locate its operations on and ultimately purchase the Property. The administrative record with respect to the Site reflects the

multiple occasions since 2009 on which Respondents have provided to EPA evidence of the impact of dredging associated with the Former Big Star Property and pressed EPA to name Big Star and HIT as potentially responsible parties ("PRPs") at the Site. Big Star's president and its counsel were parties to many of those communications. SJRF, however, apparently did not discuss with EPA in advance its plans to conduct fleeting operations in the vicinity of the Property and the Site.

B. SJRF's Operations

SJRF is currently conducting its operations just to the west and north of the Impoundments where the TCRA was completed. SJRF's primary operational areas include:

- the shoreline area of the Former Big Star Property ("Shoreline Area");
- the areas between this shoreline and the primary navigation channel of the SJR; and
- the primary navigation channel of the SJR to downstream areas.

These areas are depicted on Figure 4-1 of the Draft SAP, a copy of which is attached as Exhibit 5. Attached and marked as Exhibit 6 are aerial photographs taken on July 14, 2011, showing the location of barges parked around the Former Big Star Property.

Based on RI/FS sampling conducted on behalf of the Respondents in 2009, sediments containing dioxins and furans are present in the Shoreline Area near where SJRF's operations are concentrated. In fact, the highest concentrations of dioxins and furans identified within the Remedial Investigation/Feasibility Study (RI/FS) Study Area – other than those within and in close proximity to the Impoundments (which are now covered by the TCRA Armored Cap) – were detected in this location. The sampling data include surface concentrations of dioxins and furans on a TEQ basis at two discrete sampling points of 121 ng/kg and 153 ng/kg; subsurface concentrations of dioxins and furans in the same area are up to 349 ng/kg TEQ. A figure taken from the draft Preliminary Site Characterization Report submitted to EPA by Respondents' consultants, Anchor QEA and Integral Consulting, Inc., contains those data, as well as the locations of the referenced sampling points. A copy of the figure is attached and marked as Exhibit 7.

Respondents regard the presence of dioxins and furans in this area to be directly attributable to the dredging activities conducted on and from the Former Big Star Property. The letter dated December 20, 2011 and the technical report prepared by Anchor QEA which accompanies it (Exhibit 3) describes the dredging activities engaged in by Big Star, HIT and another company, MegaSand Enterprises, Inc., beginning in 1997. It also summarizes the multiple lines of evidence that show that those dredging activities undermined the berm around the Impoundments and caused material from the Impoundments containing dioxins and furans to be transported to various locations in the river bed and in the vicinity of the Impoundments.

C. Evidence of Impacts from SJRF Operations

During TCRA construction and other activities at the Site, Respondents' contractors have observed SJRF's tugboats and barges operating in the areas described above and noticed excessive turbidity in the SJR water behind those vessels. Concerns regarding SJRF's activities have been identified in monthly progress reports under the UAO, beginning with the report that was submitted on October 15, 2011.

In mid-September 2011, one of Respondents' contractors (Anchor QEA) attempted to retrieve an Acoustic Doppler Current Profiler ("ADCP") that had been deployed in the bed of the SJR in 2010 as part of the RI/FS investigation. The ADCP, which was regularly serviced using a retrieval buoy to bring it to the surface, was at that point located near SJRF's operations in the approximate location depicted on Exhibit 5. Anchor QEA's maintenance crew was unable to retrieve the ADCP by activating the retrieval buoy. A diver was dispatched to retrieve the ADCP on September 15, 2011, and discovered that the ADCP was buried in approximately one foot of sediment – the apparent reason why the retrieval buoy had malfunctioned. On the following day, Friday, September 16, 2011, Respondents' Project Coordinator, David Keith of Anchor, discussed the situation with respect to the ADCP with Mr. Gary Miller of EPA. He then submitted a letter regarding the situation to Mr. Miller dated September 21, 2011, a copy of which is attached as Exhibit 8.

As of mid-September, SJRF had been actively conducting barging activities for less than two and a half months. The ADCP had previously been serviced on July 13, 2011, when it had been retrieved from a nearby location without any problem. Moreover, due to drought conditions, there had been very little flow in the SJR since the July 13, 2011 service event and subsequent redeployment of the ADCP. In the absence of high flow conditions, the high sedimentation observed at the ADCP location in mid-September 2011 can only be explained by sediments being suspended and redistributed by propeller wash from nearby tugboat and barge traffic associated with the SJRF fleeting operations.

The impact of propeller wash in disturbing sediment beds in marine environments is well documented. Extensive studies have been conducted on the potential effects of these forces at contaminated sediment sites. The studies include a study by Michelsen and others (Michelsen, T.C., C.D. Boatman, D. Norton, D., C. C. Ebbesmeyer, T. Floyd, and M.D. Francisco. Resuspension and Transport of Contaminated Sediments along the Seattle Waterfront, Part 1: Field Investigations and Conceptual Model, Journal of Environmental Engineering, Volume 5, 1999, p. 35-65), a copy which is attached as Exhibit 9.

As mentioned above, EPA's contaminated sediment management guidance document (USEPA 2005) discusses the importance of taking early action to ensure control of significant contaminant sources such as propeller wash (p. 2-22). Highlight 2-7 of the guidance document, for example, lists "*boating controls (e.g., vessel draft or wake restrictions to prevent propeller wash, anchoring restrictions)*" as an example of an early action to minimize migration of contaminated sediments. (*See, id.*, page 2-23, Highlight 2-7). Highlight 2-8 also indicates that

propeller wash is a potential anthropogenic cause of sediment and/or contaminant movement. (See, *id.*, page 2-24, Highlight 2-8).

III. SJRF's FAILURE TO ADDRESS THE IMPACT OF ITS OPERATIONS

The SJRF Proposal (Exhibit 2) was prepared in the wake of the incident involving the ADCP (which showed that SJRF's fleeting operations appeared to be causing resuspension of potentially contaminated sediments in the vicinity of the TCRA Armored Cap) and an early October 2011 meeting between SJRF and EPA representatives to address those concerns. The SJRF Proposal, however, did not address the impact of propeller wash associated with operations of SJRF's tugboat fleet. It instead focused on sampling for dioxins and furans in areas in which SJRF proposes to install new pilings as part of plans to shift the location of some of its operations. Respondents were not provided with a copy of the SJRF Proposal until November 22, 2011 (the Tuesday before the Thanksgiving holiday), and had no meaningful opportunity to review and comment on it before EPA, by letter dated November 25, 2011, approved it with certain changes.

The SJRF Proposal and the Draft Baseline Site Assessment SAP prepared following EPA's approval of the SJRF Proposal are insufficient to assess the impact of potential sediment resuspension that has already occurred as a result of SJRF's operations - and will continue to occur unless EPA takes action. Additional steps necessary to address resuspension of potentially contaminated sediments were described to EPA by Respondents' consultant in a telephone conference that took place on November 29, 2011. As a result of the November 29, 2011 conference, EPA indicated that it would consider the steps proposed by Respondents and issue a follow-up letter to SJRF. To Respondents' knowledge, no follow-up letter has been issued to SJRF. Respondents urge EPA to consider the Anchor Comments attached as Exhibit 1 and the information contained in this letter and require SJRF to modify the Draft SAP to address these comments.

EPA should also require that SJRF, in the interim, modify or suspend its operations to minimize the potential for resuspension of potentially contaminated sediments and impacts to the TCRA Armored Cap. In fact, EPA should name SJRF as a PRP for the sediment resuspension and redistribution that has been occurring and order SJRF to undertake the above actions as a PRP.¹ Moreover, even if EPA decides not to name SJRF as a PRP, EPA regards its authority to

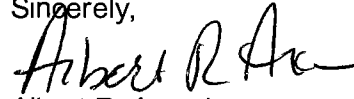
¹ See, e.g., *City of Waukegan v. Nat'l Gypsum Co.*, 587 F.Supp.2d 997 (2008) (lessees with business operations on properties adjacent to and near a harbor contaminated with PCBs - and which, along with some of the surrounding land, had been listed as a Superfund site - were held potentially liable as CERCLA operators when, in operating their vessels, they "exacerbated the PCB-contamination in the Facility" by utilization of the harbor during their operations); see also *Kaiser Aluminum & Chemical Corp. v. Catellus Dev. Corp.*, 976 F. 2d 1338, 1340-42 (9th Cir. 1992) (a construction contractor who excavated contaminated soil and moved it to other previously uncontaminated sections of a property in the process of excavating and grading a portion of said property for a housing development, was held potentially liable under CERCLA as an operator, because it controlled the excavation and grading activities which had exacerbated the contamination, and as a transporter, because of the movement of the contaminated material.)

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issue a CERCLA Section 106(a) unilateral order to extend to actions "necessary to protect the public health, welfare, or the environment." United States Environmental Protection Agency, *Guidance on CERCLA Section 106(a) Unilateral Administrative Orders for Remedial Designs and Remedial Actions*, OSWER Directive Number 9833.0-1a, pp.12-13 (1990).² In the absence of such steps, SJRF's continuing operations could impact the TCRA Armored Cap and contribute to dispersal of potentially-contaminated sediments.

We would appreciate an opportunity to discuss the above with you, and EPA's plans to address the impacts associated with SJRF's activities in the vicinity of the Site.

Sincerely,



Albert R. Axe, Jr.

Enclosures
ARA:mr

cc: Gary G. Miller, Remedial Project Manager ***Via U.S. Mail and Electronic Mail***
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² EPA has identified the basis of that authority as being that Section 106 is "broadly worded to authorize all relief 'necessary to abate [the] danger or threat' [to the public health or welfare or the environment]" and that "[t]here is no express restriction on the nature of the relief authorized except as equity and the public interest may require." United States Environmental Protection Agency, *Guidance on CERCLA Section 106(a) Unilateral Administrative Orders for Remedial Designs and Remedial Actions*, OSWER Directive Number 9833.0-1a, p, 13 n. 29 (1990) (citing to *B.F. Goodrich Co. v. Murtha*, 697 F. Supp. 89, 94 (1988)).

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EXHIBIT 1



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MEMORANDUM

To:	International Paper Company McGinnes Industrial Maintenance Corporation	Date:	March 8, 2012
From:	David Keith, Anchor QEA, LLC		
Re:	Review of Draft Sampling and Analysis Plan for Pre-Construction Baseline Site Assessment San Jacinto River Fleet Property, Harris County, Texas (Draft SAP)		

The following provides comments on the subject draft sampling and analysis plan (Draft SAP) prepared by Tolunay-Wong Engineers, Inc. and dated February 2012. These comments were prepared on behalf of McGinnes Industrial Maintenance Corporation (MIMC) and International Paper Company (IPC), the Respondents for the San Jacinto River Waste Pits Superfund Site (Site). The Site, as defined by the U.S. Environmental Protection Agency (USEPA), potentially encompasses operational areas of the San Jacinto River Fleet (SJRF), as shown in Figure 4-2 of the Draft SAP.

The comments provided in this Memorandum are not intended to be a comprehensive assessment of the validity of all statements in the Draft SAP. The focus of the review was to evaluate the adequacy of the Draft SAP in regards to establishing the potential effects of the SJRF operations on the Remedial Investigation/Feasibility Study (RI/FS) study area (Study Area), and the armored cap that was recently constructed over the northern impoundments to stabilize that area as part of the Time Critical Removal Action (TCRA).

Comment #1

The following italicized excerpt was taken directly from the subject Draft SAP as a basis for the subsequent comment:

1.3 Problem Definition and Project Objectives

Based on the area history, the SJRF Property is incidentally associated with the SJRWP Superfund Site which was added to the National Priorities List (NPL) on March 19, 2008. The investigation described in this SAP is not intended to supplement that investigation but is intended to establish the present status of the SJRF Property with respect to the ongoing

investigation at the Superfund site so that future liability can be averted with regard to remobilizing dioxin contamination sediment from barge activities. For this reason, determining nature and extent are not at issue, nor is defining risk to human and ecological receptors an objective. Whereas these are endpoint objectives for the Superfund site, they are the starting points for the baseline assessment that SJRF will conduct.

In order to avoid CERCLA liability, EPA requires that a series of baseline samples be collected before SJRF commences facility construction for barging operations. As per EPA guidance, any sampling effort will need to address environmental issues associated with sediment remobilization accompanying barge traffic and potential contamination redistribution associated with pylon installation efforts that disturb sediment in submerged lands. As noted above, hollow steel tubes will be used as pylons, resulting in minimal disturbance of sediment. Activities that will be conducted to meet these objectives will include:

- establishing pylon locations based on the proposed routing and spacing of pylons;*
- selecting key pylon locations for sediment sampling efforts;*
- developing a method for selecting and establishing sample locations for annual sediment monitoring along the main channel;*
- defining a sampling methodology for collecting representative samples of soft sediment;*
- prescribing an analytical program that characterizes contaminant concentrations in sediment at a level that can adequately evaluate ecological exposure; and, reporting to establish a baseline characterization of sediment with follow-up reports that reflect annual monitoring results.*

The primary issue of concern for the Respondents is that suspension of contaminated sediments by propeller wash from tugboats in the SJRF operational area will re-distribute sediments containing dioxins and furans within the Study Area and potentially contaminate the surface of the armored cap that was placed over the northern impoundment area as a stabilization measure for the TCRA. The project objectives provided in the Draft SAP do not address this concern and do not establish the short- or long-term effects of the SJRF

operations within the Study Area. Information regarding SJRF's operations is provided in the cover letter that accompanies this Memorandum.

In addition, sediment and soil data collected within the SJRF operational area were collected as part of the ongoing RI for the Site with the expressed objective of establishing baseline conditions within the Study Area. Therefore, baseline conditions have been established for the Study Area, and any newly collected data should be compared to that baseline dataset, which is provided in the Preliminary Site Characterization Report (Integral and Anchor QEA 2012). Since SJRF has been operating within the Study Area since July 1, 2011, the proposed sampling will not involve the collection of a "series of baseline samples". The Draft SAP should provide for the collection of a series of samples to determine the impacts of SJRF's operations over the last seven-plus months, in particular with respect to the armored cap.

The purpose of sampling at locations where proposed pylons will be driven into the sediments is not clear and does not address the Respondents' concern of evaluating the potential impact of SJRF's barge operations on sediments. Driving pylons typically only produces local and minor vertical and lateral displacement of sediments and does not significantly affect the distribution of contaminant concentrations in sediments and is considered irrelevant to establishing the effect of SJRF's operations on the distribution of dioxins and furans in the Study Area and the TCRA armored cap.

Comment #2

Section 1.4.1 of the subject Draft SAP states:

"the determination of Chemicals of Concern (COC) is a function of how potential receptors under consideration might respond to constituents that have been released from the Superfund site. Since the objective of the pre-construction baseline site assessment focuses exclusively on sediment, humans are not included in the list for the SJRF Property."

The exclusion of humans as potential receptors of concern is not consistent with the ongoing RI/FS risk assessments. It has been USEPA's position that dioxin and furans in sediment can affect water and biological tissue concentrations that can ultimately become part of a human diet. These relationships are acknowledged in the Conceptual Site Model (CSM) presented in

the Draft SAP (Figure 2-2); however, human exposures are not acknowledged in the identification of COCs or the development of screening criteria in the Draft SAP.

A large part of the RI/FS effort involves establishing potential risk to humans from dioxins and furans in soils and sediments at the Site. The USEPA has established screening guidelines for dioxins and furans in soils and the Texas Commission on Environmental Quality (TCEQ) has established tissue-based water quality criteria that can be used to establish respective sediment quality concentrations, based on biota accumulation factor considerations. The dioxin and furan screening numbers used by USEPA and TCEQ are significantly lower than those that are proposed to be used in the Draft SAP.

Comment #3

Section 2.0 of the Draft SAP states the following:

"Inasmuch as the CSM for the Superfund site targets the release point of dioxins, its application to the SJRF Site is indirect, with the latter serving more as a component interim receptor than a distribution point. In that context, the CSM for the SJRF Property will concentrate on potential redistribution of impacted sediments that source from the Superfund Site."

Historical aerial photographs of the area clearly show that sand mining and separation operations occurred on, and adjacent to, the property formerly owned by Big Star Barge & Boat Company, Inc., where SJRF currently operates. The sand mining is acknowledged in the Site History section of the Draft SAP. Discharges from the sand mining operations along the shoreline of the SJRF land-based operations are coincident with the highest concentrations of dioxins and furans found in sediments outside of the TCRA armored cap area. This information is accurately reflected in Figure 1-3 of the Draft SAP. As such, the SJRF Site is considered a direct distribution point of dioxins and furans. The SJRF operational area is directly over the materials that were discharged from the sand mining operations. These materials have relatively high concentrations of dioxins and furans compared to other sediments in the Study Area outside of the armored cap area and have the potential to be redistributed by ongoing SJRF tugboat and barge operations.

Comment #4

Section 4.0 - The Field Sampling Plan of the Draft SAP states the following:

The sediment sampling design incorporates two components:

- *One series of samples collected at four locations where pylons will be installed for barge navigation in the docking area. While a large number of pylons will be installed, only those located in areas with the greatest risk of being impacted by dioxin and furans will be sampled. As implied by its purpose, this phase of sampling will be a single event and will require knowledge of where the pylons will be driven.*
- *A second series of samples collected at four locations along the submerged west bank of the main channel of the San Jacinto River where barge traffic might stir up sediment, thereby potentially remobilizing dioxin and furans. Because the objective of this sampling effort involves a time element, this part of the sampling program will be conducted annually.*

As noted in Comment #1 above, the purpose of sampling at locations where proposed pylons will be driven into the sediments is not clear and does not address the Respondents' concern of evaluating the potential impact of SJRF's barge operations on the Study Area and the TCRA armored cap. Driving pylons typically only produces local and minor vertical and lateral displacement of sediments and does not significantly affect the distribution of contaminant concentrations in sediments and is considered irrelevant to establishing the effect of SJRF operations on the distribution of dioxins and furans in the Study Area and the TCRA armored cap.

Four sample locations along the main channel of the west bank of the San Jacinto River are not adequate to establish the potential effects of SJRF operations on the Study Area, and certainly do not address the concerns related to potential contamination of the TCRA armored cap by sediments that are suspended and transported through the water column as a result of barge and tug operations associated with SJRF operations. The proposed sampling locations, shown in Figure 4-2 of the Draft SAP, are located on the northern edge of the Study Area and have had historically low concentrations of dioxins and furans based on RI/FS data (shown in Figure 2-3 of the Draft SAP). The proposed sample locations are also outside of the areas of the river where higher concentration materials would settle out of the

water column due to the existing flow paths and hydrologic regime of the river. As stated earlier, the higher concentration materials are located along the shoreline of the SJRF property: the choice of sampling locations should be related to the existing distribution of dioxins and furans in sediments within the Study Area and the existing hydrologic regime of the river. Sampling locations should be determined based on where potential scour and deposition of the higher concentration materials are expected.

In addition, sampling on an annual time frame does not provide short-term information regarding the ongoing effects of the SJRF operations on sediment quality in the Study Area or the TCRA armored cap area. The scope of sampling should include more sampling locations, more frequent sampling, and more aggressive sampling techniques to determine if the ongoing SJRF operations are substantially changing the baseline conditions of dioxins and furans in sediments within the Study Area and the TCRA armored cap area. The current baseline dataset that was collected for the RI/FS is being carried forward in ongoing ecological and human health risk assessments for the Site and in the FS planned to begin in the fall of 2012.
